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(Forage-Crop Investigations),

WM. A. TAYLOR, Chief.

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MEADOW FESCUE.

Meadow fescue (*Festuca pratensis*), improperly called English bluegrass, is a hardy perennial grass attaining a height of 15 to 30 inches, or even more on rich land. (Fig. 1.) It does not propagate by rootstocks or form a very heavy sod, but it is not inclined to be so bunchy as orchard grass or tall meadow oat-grass. Its leaves are a bright green and very succulent. The seed is produced in abundance in open panicles, similar to Kentucky bluegrass, although much larger and more easily harvested. It is a standard grass in Europe, but has not received the attention which is due it in this country. The principal reason for this is that in the past the seed has been quite expensive and in most cases not very good, causing much difficulty in securing a stand. Heretofore, it has been mostly imported and has been of very inferior quality. Another reason why meadow fescue is not more generally grown is because very little has been done by the State experiment stations and other agricultural organizations in the way of its extension. It is grown to a very limited extent in some portions of New York, New England, Pennsylvania, Ohio, Kentucky, and to a very small extent in a few of the Southern States. It is of most importance in eastern Kansas and Nebraska and in parts of Missouri.

USES AND VALUE.

Meadow fescue is best adapted to use as a pasture grass, although it makes a very good quality of hay and gives quite a heavy yield. Two tons per acre on average land is not exceptional, and it is possible to secure even more than this under proper treatment. Where the hay is used it is considered to be of very good quality, but it is not grown in sufficient quantities to be compared with timothy or other standard hays. It does not reach its highest state of productiveness as soon as timothy, but usually remains productive much longer. Thus far, in sections where it is most common, it has been grown for seed and pasture rather than for hay. It is a very valuable grass for pasture, as it comes on early in the spring and also remains late in the fall. This latter point is of especial importance in Kansas and Nebraska, as it supplements the native pastures there. After the frost has killed the native grasses, stock may be turned in on meadow fescue, thus reducing the period of dry-lot feeding



FIG. 1.—Meadow fescue (*Festuca pratensis*): 1, Whole plant; 2, a mature floret; 3, ligule at the base of the blade showing the peculiar hornlike appendages.



several weeks. It has been used as hog pasture with good results, although it is not as valuable for this purpose as alfalfa where the latter can be grown. In sections where the summers are quite hot and dry it has a tendency to dry up, like Kentucky bluegrass.

#### SEED.

Meadow fescue has excellent seed habits and produces an abundance of highly germinable seed which is easily harvested and cleaned. Northeastern Kansas is at present producing more seed than any other section of the country, and seed from this source gives a good stand of grass without difficulty. The same is true of most of the seed produced in the United States. The recognized weight of seed is about 25 pounds to the bushel, although when thoroughly cleaned it will weigh a few pounds more. It retails at 6 to 10 cents per pound.

#### PLANTING.

In eastern Kansas and Nebraska fall sowing seems to give the best results. However, in sections where the winters are cold and there is considerable freezing and thawing, causing the ground to heave badly, spring seeding is preferable. It is a common practice to sow meadow fescue on ground that has been previously in wheat or oats and which has been plowed in July or early August. The ground when plowed then has sufficient time to settle, and by loosening up the surface with a disk harrow at the time of seeding, which is usually the last of August or early September, an excellent seed bed can be secured. Meadow fescue is also sown successfully in fall wheat or rye. Seed may be sown either broadcast or with a press drill, the latter method giving the best results. When a drill is used it is well to sow one-half of the seed each way, so as to cover the ground more evenly. In sections where seed is produced a perfect stand can be secured with about 15 pounds per acre. However, 20 to 25 pounds are recommended under most conditions. When sown alone in the autumn a crop of hay or seed may be expected the next year and a considerable amount of pasture also.

#### HARVESTING.

When the meadow is intended primarily as a hay crop the grass is cut with a mower just as it is coming into bloom. The processes of curing and stacking are similar to those for timothy and other hay grasses. In harvesting a seed crop the grass is allowed to stand until the field takes on a yellowish color and the heads begin to droop; it is then cut with a grain binder and placed in small shocks to cure. The thrashing is ordinarily done directly from the shocks in the field, but brighter seed is obtained if the grass is stacked before thrashing. An ordinary grain separator can be used for thrashing

by cutting off most of the blast from the fan. Special screens are of value, but are not necessary, as a wheat riddle does fairly satisfactory work.

#### SUGGESTIONS.

Meadow fescue can be successfully grown throughout the timothy region, also farther south and west, as it is able to withstand more heat and drought than timothy. Good results have been obtained with it in mixtures with orchard grass and brome-grass in sections where both can be grown. It is probable that meadow fescue will give better results under most conditions in mixtures with other grasses than alone.

The oat rust, which sometimes destroys the seed crop but in most years injures only the aftergrowth, is often present in the meadows. The most troublesome weeds are whitetop (*Erigeron ramosus*) and common cheat (*Bromus secalinus*). Japan cheat (*Bromus japonicus*) is found in a few fields.

H. N. VINALL,  
*Agronomist.*

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